

**Richard L Sanderson**

55 Linsley Street Branford, CT 06405 203-481-1929

The following is my opinion as to what happened to the Fairmont Hy-Rail driven by Mr Papadakis and is based on:

1. 41 years of work equipment experience ,several as a manager
2. reading the depositions of csx mechanics
3. reading the depositions of Peter Ebert,owner TNTrepairs
4. direct conversations with Mr Papadakis
5. talking to representatives from Fairmont Tamper Mfg Company
6. reviewing the 0307 Hy Rail service manual
7. an actual hands on test of a Hy Rail vehicle
8. besides having direct knowledge of the mdl 0307a Hy Rail assembly, I also have worked on or been responsible for all

phases of repair and maintainence on many different style, size, and manufacturer of hy rail units.

As Mr. Papadakis proceeded to perform his i/r inspection trip he aligned his vehicle on a railroad crossing and proceeded to lower the guide wheel assemblies to the rail position where they would have to be loaded and locked for rail travel. This is accomplished by removing lockpin and then inserting hand lever into lower socket and pushing downward to release pressure on locking pawl lever,releasing the mechanical lock and lower guide wheel assembly to lower or rail position.

He would then remove hand lever and insert it in the upper socket of the easy lift conversion assembly and push down on the hand lever forcing the guide wheel down until the spring loaded locking mechanism fully locks, securing the assembly in the rail position. He would then insert the lock pin securing the locking pawl.

This procedure would then be repeated on all remaining guide wheels and the steering wheel lock applied before the vehicle would be ready for moving on the rail.

What I believe happened was when Mr. Papadakis, while using a incorrect hand lever (from a different model) ,which is evidenced by the testimony of Mr.Ebert and Mr. Papadakis, to put the hy rail guide wheels into rail position , went over center (over cammed) with the pivot arm allowing the left front guide wheel to lock in the rail position. However at the end of his trip, when he went to release the pressure on the left front guide wheel unit, he experienced free movement of the upper socket. When he pushed down to release the loaded

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pressure and pushed the locking lever forward ,overcoming the vehicle load allowing the guide wheel assembly to come out of the loaded position. This load was probably light because he unloaded the rear wheels first and with the loaded truck raised the front suspension allowing for less weight on that assembly. When he inserted the bar into the lower socket and pushed down to raise guide wheel to highway position he would not be able to lock it because pivot arm would be in the way. He would have to either raise the vehicle high enough to replace the pivot arm or manually raise the wheel and tie or chain it in the upper position for highway travel.

There are safety appliances built into the 0307 a HyRail easy lift conversion which helps prevent the unit from going over center or over camming. The correct hand lever has bends which hit before allowing over centering. Also a stop arm is attached to the upper socket and when maintained and adjusted provides a second level of protection .Although it is not as positive as the bar bends, it still provides a noticeable resistance. According to testimony from CSX mechanic Santillo he noticed an excessive gap in this clearance and a gouged frame. Also the mounting height of the guide wheel assembly must be in limits because if it is too high it will make it easier to overcam due to greater angle. There were no service records as to when it was last serviced or repaired. This makes it difficult to know if the wheel weights or heights were in specifications.

In my opinion, by using the incorrect supplied hand lever for the 0307a easy lift conversion ( based on bulletin stating the removal of all such bars after the Papadakis injury) and by not adjusting and maintaining the clearance of the stop lever made it easy to over cam the guide wheel unit. Because of lack of proper training the operator was not familiar with procedures to reposition pivot arm and had to resort to chaining unit to move vehicle. I was unable to read any required maintenance records to see if any repairs were made on this hy-rail ,or if he was supplied the proper tooling or training to accomplish this task.

I will support my opinion with photographs of the Fairmont Hi-Rail vehicle taken by Mr. Gailor and Mr. Papadakis, the Fairmont 0307 service manual, video instruction in the use of Fairmont Hi -Rail procedures and diagrams of various working components of the 0307 Fairmont unit.

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